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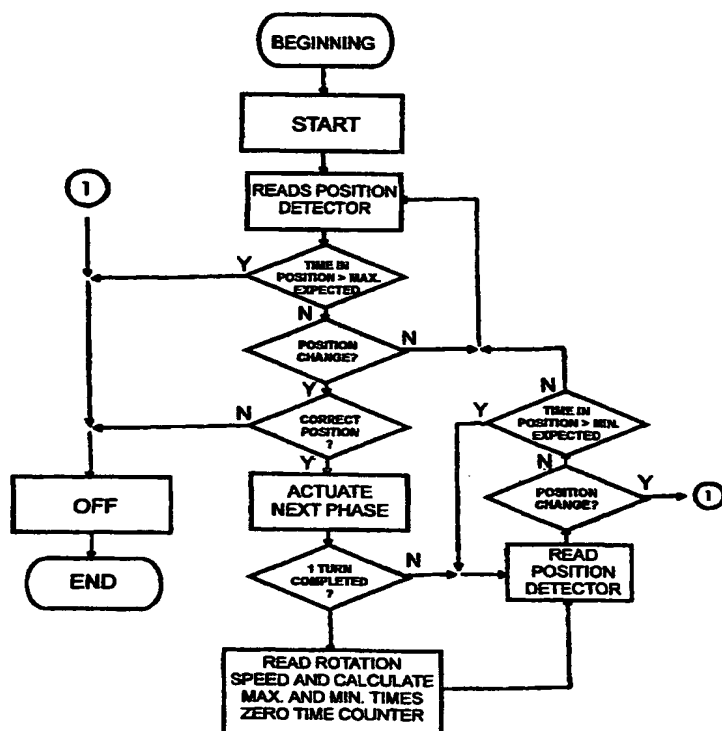
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(54) Title: **A METHOD FOR CONTROLLING AND PROTECTING ELECTRIC MOTORS, A SYSTEM FOR CONTROLLING ELECTRIC MOTORS AND AN ELECTRIC MOTOR SYSTEM**



(57) Abstract: A method for controlling and protecting electric motors (10) provided with a rotor, specially permanent magnet motors electronically actuated by a control system (2) comprising a three-phase inverting bridge (5), characterized by being comprised of the step of counting a first period of time, during which said rotor should be between an original position and the next position, and the step of counting a second period of time that follows said first period of time, during which said rotor should pass through said next position. The present invention is also expressed as a control system (2) for an electric motor (10) provided with a rotor, specially a permanent magnet motor, comprising a three-phase inverting bridge (5) and characterized by being additionally comprised of a microcontroller capable of analyzing the positions of the rotor as a function of the time, associated with a counter capable of carrying out the step of counting a first period of time, during which said rotor should be between an original position and the next position, and the stage of counting a second period of time that follows said first period of time, during which said rotor should pass through said next position, as well as an electric motor (1) comprising the control system (2).

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